Introduction
Detailed System Design Deliverable

1 Introduction to the Detailed System Design Deliverable

1.1 Purpose of the Detailed System Design Deliverable

This document presents the final and major design deliverable in building LAKIDS, Louisiana's Statewide Automated Child Welfare Information System: the Detailed System Design Document (DSD). The materials here build on the interim design deliverable, the Conceptual System Design, delivered to the State in August, 2001.

The DSD provides the detailed specifications for both the LAKIDS application and the technical software support. It contains the specifications for each system input and output, identifies all the functional components of the application, and defines all the data elements and databases. It provides the roadmap to LAKIDS that allows the State to move forward with the development and eventual implementation of the system.

Although this deliverable follows on the work of the Conceptual System Design (CSD) deliverable, the products reflect different purposes. The conceptual design serves to explain the functionality of the system and presents its look and feel, and is appropriately directed at a wide reviewing audience. The conceptual design process included the participation of multiple stakeholders including DSS Office of Management and Finance, foster and adoptive parents, residential providers, contracted service delivery vendors, child welfare advocacy groups, other State agencies, Department of Social Services, Office of Community Services (OCS) staff from central, regional, and parish offices. Their input described their preferences, requirements and needs for automated support in operations and service delivery, and their ideas and comments were incorporated into the CSD deliverable.

The detailed design moves forward from the conceptual description of the system, and provides more specific technical direction for a narrower audience: it is a guide for the developers of LAKIDS, and to those programmer-analysts who will have responsibility in the future for the maintenance, modification and enhancement of LAKIDS. It identifies the business rules that will be implemented in each of the design topics, and provides expectations for the step-by-step processing that will be performed by each topic, or functional area, of LAKIDS.

Specifically, the DSD moves beyond its base in the CSD, by providing detailed design documentation that supports the development of all application software. To meet that objective, the DSD includes the following components:

- Descriptions of functions and processes;

- Screen and report layouts;
- Formats for notices and forms that are produced within LAKIDS;
- Entity relationship diagrams, data flow diagrams, and data dictionaries;
- Details of inputs, outputs, and edits;
- Diagrams of application software design; and
- Details of plans for data security, backup and recovery.

Similarly, just as the DSD is intended for use by a specialized audience, the development of this document did not include the participation of as wide a group of stakeholders as the CSD. Rather, members of the LAKIDS project team provided the primary input to designers who turned to them for additional or clarifying information in the preparation of Detailed Design papers. On an as-needed basis, members of the design staff arranged for the input or review of state program staff to provide insight into specific functional decisions. The 39 detailed design papers produced in this phase of the project are included in this deliverable. In their final form, they represent the results of a year-long process that featured iterative construction and continuing collaborative reviews. Together with other deliverables—the System Architecture Specification, the Object Model and Data Model, and the Security Plan—the design papers provide a framework for building the LAKIDS system in Phase two of this project.

To provide its readers with an understanding of the place of the DSD within the overall project timeframe and structure, this document also provides a high-level summary of the major activities within Phase 1 of the LAKIDS project. It describes the major activities that have taken place throughout the design phase of the LAKIDS project—steps undertaken with the ultimate goal of building the detailed design. This high level overview traces the path from system requirements definition through detailed design, with accompanying technical architecture planning and specification tasks. This document also provides a descriptive overview of the functionality of LAKIDS, and provides a summary of the major components of the system.

The Detailed System Design document has seven major sections of content:

- **Detailed Design papers** present the planned functionality of the system, describing the screens and their data fields, summarizing related background and save processing, and identifying related data exchange through interfaces. The 39 topic papers make up the building blocks of system functionality. The detailed design specifications include:
  - Design documentation, including screen layouts, and references to reports, forms and notices, as described in other sections of the deliverable; and
  - Details of inputs, outputs, descriptions of functions and processes, and edits.

- The **Object Model** illustrates the complex integration of the data elements in LAKIDS. It shows the logical connections between the different program areas supported by LAKIDS, and illustrates the proposed structure of the system.
- The **LAKIDS Data Model** is derived from the Object Model, and is the foundation for the development of the system's final physical database. It defined database tables, the data elements and their attributes.
- An overview of the 70 **Forms** to be created within LAKIDS is presented, along with specifications for their development. The forms to be included in the LAKIDS design were identified during design sessions, and their inclusion in the final document was determined by state project staff after review and analysis of input received during the design sessions. The forms designs were created as part of the detailed design papers, but are presented in a single section to better support their review and eventual creation.
- An overview and list of the 70 **Reports** to be created within LAKIDS is included, and the specifications for their creation within LAKIDS. It should be noted that this list of reports represents the final current selection of reports by the State's project staff. Certain reports proposed for development in the CSD have since been deleted at the State's request; but at the same time, other selected reports have been created within the parameters of those originally proposed, resulting in a redefined grouping of reports within the contract-specified levels. The reports to be created within LAKIDS were identified by a subgroup of LAKIDS project staff; the final selection was approved by the LAKIDS project team as part of the final design planning.
- The **Reference Data Report** summarizes the data elements that reflect Louisiana's preferences and usage, and that appear in drop-down lists and as list-box values within LAKIDS.
- **Verification of Requirements Met** provides a table linking the State's more than 300 requirements for system functionality and performance with the specific topic papers and components of the Detailed System Design deliverable that respond to those requirements.

The contents of this document have been reviewed and examined in various developmental stages and formats throughout their development within this project's quality assurance review process, and also have benefited from interim reviews and input from the LAKIDS project staff and from state staff who participated in the Detailed Design process.

1.2 Background to the LAKIDS Project

The Department of Social Services, Office of Community Services has undertaken the development and implementation of the LAKIDS system to support the Department's provision of services to abused and neglected children and to their families. LAKIDS will meet the State's definition of a Louisiana-specific child welfare tracking and management system. In addition, while LAKIDS will ensure the State complies with Federal requirements for mandated child welfare data reporting, OCS sees an opportunity to use LAKIDS to meet its own programmatic requirements, management reporting needs and user support preferences.

The development of LAKIDS will give OCS an integrated, statewide case management system that complies with federal requirements for a statewide automated child welfare information system (SACWIS). LAKIDS will also support the Department's ability to meet federal standards for the Adoption and Foster Care Analysis and Reporting System (AFCARS) and the National Child Abuse and Neglect Data System (NCANDS). Additionally, LAKIDS should provide the service tracking, practice definition, and information management processes that will allow OCS to meet requirements of the Council on Accreditation.

This implementation of LAKIDS is being accomplished in two phases: an initial design and technical specification phase, and a second development and implementation phase. This initial phase of the project consists of validation of data requirements, the development of conceptual and detailed designs, and the specifications of system architecture and development standards.

The LAKIDS concept features person-and-event database entities, which track clients, providers, payments, and activities. The system includes Service Management, Staff Management, Provider Management, and Financial Management components. In addition, the design includes a number of common application functions that support the functionality of all modules, such as search, security, and office automation features. When operational, LAKIDS will link over 2,000 users: OCS staff throughout the State, foster parents, and other providers. LAKIDS will provide workers with increased efficiency and productivity in managing their caseloads, while OCS will gain the data it needs for detailed client tracking and monitoring, program management and quality assurance, enhanced financial management, and federal reporting. Providers will be able to use Internet-based data sharing capabilities of LAKIDS to access specified client, service, and payment data.

The system's design phase has been guided by a Project Team staffed by representatives of the Department of Social Services, Office of Community Services, the DSS Information Services Division, program and technical staff from American Management Systems (AMS), and MAXIMUS, the State's quality assurance contractor. During the Phase 1 project period, the State's project staff

were assigned to the Office of Management and Finance's Information Technology division through an agency wide reorganization of systems and technical support staff, but this realignment did not itself change the staffing complement on the LAKIDS project team. The LAKIDS project team members contributed their knowledge of the requirements developed through focus groups prior to the issuance of the RFP, participation in requirements development, and first-hand knowledge of the service delivery system. Technical staff assigned to the LAKIDS project team provided their knowledge of the technical operating environment within OCS, experience with the currently-used TIPS financial processing system, and the data sharing interrelationships between OCS and other departments and agencies.

Members of the AMS team added their experience in the design and implementation of child welfare information systems, familiarity with SACWIS requirements, knowledge of web-based design principles and the advanced methodologies, tools, and technologies to be used for LAKIDS. MAXIMUS staff (with their subcontractor Walter R. McDonald and Associates) monitored the quality and timeliness of the project's deliverables and processes.

1.3 Phase 1: The LAKIDS Design Process

While Phase 1 of the LAKIDS project is properly termed the design phase and Phase 2 the development phase, the 16-month effort in this initial phase combined multiple sequential tasks. In reviewing the progression of work that culminated in the DSD, it is useful to place the design process into the context that affected content and direction.

The design of LAKIDS, and performance of the development and implementation tasks that make up Phase 2 of the system has been influenced by three major factors:

- First, LAKIDS is being developed in response to federal requirements for child welfare reporting systems. Therefore, the requirements defined for Statewide Automated Child Welfare Information Systems (SACWIS) serve to define a major portion of the system's core tracking and reporting performance;
- Second, the Office of Community Services has set out its own general expectations and requirements for a child welfare system's ability to support high-quality, effective operations and standard, policy-compliant business processes; and
- Third, the system selected for the State's implementation is to be a Web-based system, with navigation features that are intuitive and appropriately designed for ease-of-use by both agency staff and providers (who will have access to some, but not all LAKIDS features);

the content, functionality, and look and feel of the system were to be designed with the input of the staff who represent the user community.

Business Requirements

Prior to the inception of this design phase, OCS staff defined the objectives, key requirements, and system scope for LAKIDS. These business, functional, and technical objectives were presented in the State's Request for Proposals (RFP) as the formal requirements for the system. The more than 300 LAKIDS requirements have been, and remain the underlying drivers of the design process.

Overall, the primary requirements for the system, as summarized in the RFP, are that LAKIDS:

- Assure accurate tracking of clients and providers served by OCS;
- Assist in the evaluation and planning for the needs of OCS clients;
- Assure that accurate and prompt payments are made to providers and OCS staff within the provisions set forth in OCS programs; and
- Maintain the State's legally mandated Central Registry and the Louisiana Adoption Resource Exchange.

These drivers remained throughout the Phase 1 activities as providing the ultimate objectives for system functionality and performance.

Major Activities in Phase 1

Design activities were carried out in a sequence that provided the design staff with an increasing understanding of the goals and objectives of LAKIDS, and a deeper knowledge of how the system will operate within the operational, managerial, and technical environment within OCS. Project efforts were focused around four major task areas:

1. Preparation of the Systems Requirements Document, an extensive review, analysis and confirmation of the state's requirements for LAKIDS as set forth in the Request for Proposals. This task culminated in the preparation of a deliverable that demonstrated understanding of the State's expectations for system functionality.
2. The preparation of the Conceptual System Design, that provided an initial technical definition of LAKIDS, with a high-level definition of the application data and a preliminary "look and feel" design.
3. Technical architecture planning, which proceeded on a parallel track to design work, and included such activities as the capacity analysis, resource requirements definition, security planning, and recommendations for a data warehouse. Technical staff

additionally managed the production of the object model and the data model, integral to the design process.

4. The preparation of the detailed design specifications, the final deliverable in Phase 1 activity, which provides the framework and instructions for Phase 2 activity.

The chronological activity that led to the development of the DSD began with the validation of the 332 RFP requirements with the input of OCS staff. A brief summary of major Phase 1 activity follows:

The System Requirements Deliverable: Requirements Validation

To validate the AMS team's understanding of the system requirements, and gather information for the Systems Requirements Deliverable, 20 requirements validation sessions were held, with overall participation from some 300 State staff, representing users throughout OCS. These sessions were the initial formation of the functional groupings that were presented in the Conceptual Design Document. At these sessions, prospective users of the system provided input regarding the functionality represented by the requirements listed in the RFP, described the way work is performed throughout OCS offices, discussed their expectations for support from LAKIDS in their day-to-day business processes, and identified potential business process reengineering opportunities. The RFP requirements listed the State's expectations for system functionality, and incorporated the Federal requirements outlined by the Administration for Children and Families for a SACWIS system.

The outcomes of the Requirements Validation sessions included definition of the major workflows and functional components of OCS work that would be represented in LAKIDS. With this comprehensive understanding as a baseline, the AMS team developed workflow captures with associated business scenarios, describing a functional approach to OCS operations. From the individual business scenarios, use cases were developed, providing a high-level description of how OCS business will be performed using LAKIDS. The outputs of these processes were collected in the System Requirements Deliverable, the first major description of the components of LAKIDS and its expected functionality. It should be noted that an updated mapping of requirements compliance is included with this deliverable as Volume 12.

The SRD Deliverable: The System Requirements Deliverable (SRD), submitted to the State in February, served as an important precursor to the Conceptual Design Document in its description of LAKIDS functionality. The SRD included business scenarios and use cases, which describe the work performed by OCS staff. Typical business scenarios included such routine casework tasks as conducting an investigation, obtaining an adoption subsidy, and arranging manual payments for foster parent expenditures. The preparation of business

scenarios and use cases allows staff to map expected system functionality to the requirements. The SRD served as a basis for the organization of the Conceptual Design, as it allowed designers to organize the initial design into functional areas, as represented by the topic papers.

The delivery of the SRD marked the change in focus from requirements definition to the Conceptual Design process. This new phase of project activity retained the active involvement of state staff for knowledge sharing and participation in the design process.

The Conceptual Design Process:

To refine the understanding of system requirements, and to validate their translation into system design, a series of some 30 Design sessions were held, with OCS staff input and participation. These design sessions followed the principles of Joint Application Design, in that the sessions included discussion with users of their business needs and system preferences. These sessions, guided by AMS Project Team members, offered an examination of the system's functionality expressed in components related to work processes—known as topics. Topic papers describe the presentation layer of the LAKIDS application: layouts for screens, definition of data fields, related documents, and system processing such as ticklers or automated messages. Topic papers present a high-level description of the business functions served by the screens, and in their final form, offer guidance to developers who will build the application.

At the design sessions, the topic areas served as the basis of the organization of the presentation of materials. Design sessions featured a high level, draft presentation of system operations, allowing users to view screen designs, proposed tab structures, and examine preliminary screen contents and data. The OCS representation in the design sessions included LAKIDS project staff and program staff whose participation brought their in-depth knowledge of current program operations and of agency goals and objectives. These participants in the requirements validation process served to provide a step-by-step review of functionality of the baseline system and contributed informed insight:

- Their pragmatic understanding of the State's basic policies and practices, program goals, and everyday constraints offered a realistic portrait of the environment in which LAKIDS will operate. Their grasp of the OCS vision assured communication of goals and objectives that the system will support; and
- Their reaction to the high-level presentation of the preliminary system concept—either from viewing prototype systems used in other states or reviewing hard copy screen designs—gave the AMS Project Team a

broad and reliable initial assessment of its fit to the State's actual requirements.

The design sessions with a broader audience were preceded by a series of "internal designs" with LAKIDS project staff, whose early review validated the materials that were to be presented to the broader audience at the formal design sessions.

At the conclusion of the design sessions, AMS design staff analyzed the input of OCS staff, compared verbal discussion with the existing system requirements, and began to finalize the conceptual design in the form of topic papers. These papers in their final form present the definition of the system, organized in a logical flow of system functions. Each topic paper describes the system processing associated with a business function or a group of integrated, related business functions. The topic papers present the preliminary design for screen layouts, the initial definition of data fields, and the first selection of reports and notices associated with the business processes enabled by the screens.

Initial Definition of Reports and Forms: A preliminary listing of the 70 LAKIDS-generated reports selected by state staff for generation from the system was included in the Conceptual Design Document. Similarly, a preliminary definition of the standard forms, which would be developed through the project, was developed for inclusion in the CSD. As part of the Detailed Design process, during which report and form design specifications were developed, consensus regarding the final selection of reports and forms was developed by the state project staff.

Quality Assurance Review: After topic papers were prepared in their final form for inclusion in the CSD, the individual documents were shared with State staff and the QA contractor for a pre-deliverable review. Detailed QA review reports were shared with designers and members of the AMS team, so that the topic papers included in the Detailed System Design deliverable represent the input, review, and concurrence of the broad project team—who represent the LAKIDS user community— and quality assurance contractor.

The CSD Deliverable: The topic papers, object model and data model were presented to the State as the Conceptual System Design, a 3,000-page document that provided a high level overview of the functionality of LAKIDS, and described the major components of the system. The CSD provided an overview of the system's technical architecture, and presented the overall logical flow and functionality proposed for LAKIDS. It presented a conceptual user interface model, represented in the look and feel of window designs as summarized in the topic papers, which addressed the basic building blocks of system functionality.

Another outcome of the CSD was a basic "look and feel" to support the development of a LAKIDS prototype, a separate deliverable under this project.

Technical Architecture Planning and Specification

In addition to definition of the system's functionality and data, a major part of Phase 1 activity centered on technical planning and architectural specification tasks. This work provided the early definition of the technical infrastructure that will be required to support LAKIDS. This work included a capacity analysis of the current OCS platform environment, and a resource requirements document, describing the technical support resources necessary for the development and operation of LAKIDS, including CPU capacity, data storage requirements, and estimates of time and effort required for transaction and batch processing. The purpose of these activities is to allow OCS to assure that the hardware, software and telecommunications architecture—the state's platform environment—can provide or be upgraded to supply an appropriate and adequate platform for LAKIDS.

The AMS team used the Rational Rose modeling tool to create and document object-oriented design work products, including high-level use cases, activity diagrams, and class diagrams. The workflows, use cases, and high-level reporting and interface requirements were incorporated in the SRD.

The major task within the technical focus is the preparation of the System Architecture Specification. This task provides recommendations to the State of the appropriate platform to support LAKIDS in terms of hardware, software, and telecommunications architecture, while reflecting the realities of the State's existing OCS software and hardware resources. The System Architectural Specification (SAS) included the following components:

- Software architecture, defining the operating systems, application servers, database management system, security approaches and the application software components for LAKIDS;
- Hardware architecture, including the computers, networks, other physical components and their configurations; and
- The database architecture, which defines how the data required to support LAKIDS will be implemented, and how this data will be accessed, partitioned, and distributed across the architecture.

The system architecture reflects the business principles that LAKIDS serves, recognizes the existing technology assets of OCS, and provides a flexible, changeable approach to future technology needs and directions, as the State identifies the platform to be used for LAKIDS.

Development of Object Model and Data Model: As part of the Conceptual Design tasks, the LAKIDS object model and data model were initially developed. The purpose of the object model within the CSD is to set the direction for how the system is constructed, and the model was further refined as part of the Detailed Design process. Developed with inputs from the use cases, the object model incorporates a set of classes that represent logical business entities that are handled by the system. The logical data model defines all of the data required in

LAKIDS, and determines the relationships between the data and the logical access to the data. Creating the data model ensures that LAKIDS data elements are accurately reflected, and the relationship between entities and data elements are accurately defined.

As the data model was completed, a data dictionary was assembled, with definition of the attributes and classes. The data dictionary gives OCS a name and description of data elements, relationship to tables, record format and layout, and security attributes. As new data elements were created as part of the Detailed Design process, they were included in the updated data model.

Technical deliverables: The deliverables prepared by the technical staff during Phase 1 included the Capacity Analysis, the Resource Requirements Document, the System Architecture Specification, and the data model and object model, which are major components of the CSD and DSD deliverables.

The Detailed Design Process

The Detailed Design process culminates in the preparation of this deliverable. It represents the refinement of the work products developed in the requirements validation, conceptual design, and technical architecture specification tasks in Phase 1. The detailed design specifications include all modules of LAKIDS: presentation modules, business processing modules, data access modules, system interface modules, batch processing modules, and system security modules.

Though less interactive than the requirements validation and conceptual design stages of Phase 1, the Detailed Design process included multiple walkthroughs of the design of the presentation layer with members of the State's LAKIDS project team. The walkthroughs of the design products ensure that the state staff are familiar with the contents and format of the design work, that they are complete, comprehensive and clear.

The Detailed Design process includes further refinement and definition and the addition of greater detail to the contents of the CSD. This included review of more detailed design work for the screens, batch processing specifications, forms, reports, and interfaces, which built on the high level CSD description of the application and related processing. These detailed design activities included the following:

- Interfaces: The exchange of data must be specified in the application software, this includes specifications for data sharing with the systems whose interface has been mandated by SACWIS requirements (Titles IV-A, IV-D, XIX and NCANDS). In addition to these systems, specifications were prepared for other systems within the Department of Social Services

as well as systems external to DSS. Interfaces were generally specified as calling for data export or import via periodic batch processing. In the Detailed Design development process, interface specifications were created for 13 different interfaces. The State's LAKIDS project staff actively worked on developing the related information exchange with the administrators of the systems identified for interface with LAKIDS for the agreed-upon interfaces.

- Batch Processing: Batch operations allow for efficient system operations, by scheduling processing-intensive work to off hours, or by separating out the work that can be addressed more efficiently in a single operation than by continuous processing. As part of the Detailed Design process, the design teams developed the programming instructions for batch processing within LAKIDS, including the specification of input and output files, and assignments and schedules.
- Reports: AMS proposed the development of 70 reports that would be generated from system-resident data during this phase of project work. As part of the CSD development process, a preliminary listing of reports was prepared in conjunction with the individual designs. This group of reports was selected with LAKIDS project staff input from the initial reports nominated for development. Throughout the Detailed Design process, this list was subject to review and revision, as the precision of available data was further refined from the CSD and the state's management information needs were further considered and reshaped. The reports definition process additionally included review of the contents of the reports suggested by State staff for inclusion in the group of 70 named reports; certain reports were broken out as individual entities from proposed single report descriptions. After final approval of the LAKIDS project team members regarding the final proposed listing of reports and their contents, the report specifications were developed by the design team members. In their final form, the report specifications were developed separately from the design papers. The list of reports, their design, and their development specifications are presented in Volume 6 of this deliverable.
- Forms: AMS proposed the development of 70 forms that would be generated within the system, as part of this phase of project work. As part of the DSD development, the specifications for 70 forms were defined, outlining format, content, and the business process through which they would be created. This final group of forms was selected with the input of LAKIDS project staff. The list of forms, their design, and their development specifications are presented in Volume 5 of this deliverable.

The results of the detailed design activities can be seen in the 39 design papers that make up Volume 2 of the Detailed System Design deliverable. It should be noted that in the Conceptual Design Document, 40 topic papers were included. During Detailed Design reviews, a decision was made to consolidate foster care, family services and adoption topics into a single Services topic, thus reducing the total number of topic papers. Thus, the *Family Services and Foster Care*, and

the *Adoption* topics are replaced with *Services*. Similarly, the name of the topic describing functionality related to provider organizations was changed from "Private Provider" to "Provider."

1.4 Overall Functionality of LAKIDS

As background to the design, and to provide the reviewer with context for the DSD, this section provides an overview of the overall functionality of LAKIDS, which is reflected in the Detailed Design for system development. The system baseline is organized around four major functional components supported by another processing and operational component, which includes seventeen common application functions. An additional interface management capability governs the exchange of information with other automated data sources.

The major functional components are:

- **Service Management,** which provides support for basic intake, investigation, and family services and child protection casework processes and service delivery;
- **Provider Management,** that encompasses provider recruitment, licensing, training, and contract support;
- **Financial Management,** which calculates payments, and guides eligibility management, federal reimbursement, and budget and financial monitoring tasks; and
- **Staff Management** for maintaining information about OCS service delivery staff, their location, training, and caseloads, and for tracking casework assignments.

Another major design component, the common application functions, or CAFs, include the system infrastructure features, such as security, person merge capability, and tickler functionality. CAFs support the functional components, by providing structure and familiarity to often-used system features, such as search, or system help and policy.

Interface capability allows LAKIDS users to share data with other systems and software:

- access to office automation tools is accomplished through an application programming interface (API), and
- information sharing with such data sources as Louisiana's child support enforcement, income maintenance and Medicaid systems is accomplished through a uniform data access method, Data Access System Integration Services (DASIS).

The system is accessed through an easy-to-use, intuitive graphical user interface (GUI) called the Desktop, which makes use of a navigation tree and tab format.

This GUI design provides an on-screen Desktop for daily practice, by allowing the user to browse through file folders of completed work, and to add or complete new work within cases.

LAKIDS is designed to provide full children's and family services functionality. The child welfare functionality includes preventive and support services, out of home placement, and adoption. It supports family services that are intended to maintain and promote family stability. Provider and placement functionality incorporates such service partners as foster and adoptive parents, residential and other facility-based providers. Its case and provider management functionality embrace a full continuum-of-care, from in-home services to intensive and specialized out-of-home care.

LAKIDS provides its users with easy access to the client, service resource, program, and financial data to support daily operations. Because the system uses a single, integrated database, it makes information about any client or any service provider available to any LAKIDS user with proper security. It provides the State with an inventory of all children in out-of-home care, and children awaiting adoption. For children and families receiving services, LAKIDS maintains up-to-date case histories storing participant, service, and payment information throughout the entire life of a case. Provider information includes capacity, service types, license status, and payment records.

LAKIDS as a Worker-Centered System

The system is primarily a caseworker tool. Rather than serving only as a repository of worker-entered data, LAKIDS is an interactive guide to casework, in which data collection is secondary to process. Work is documented as it is performed.

LAKIDS is also an interactive system, where work is accessed through a logically-organized navigation tree, and on-line choices guide the user through the various steps of casework, following a familiar progression. The system was designed as a tool for consistent, timely, and effective case management. Many of the processes that support workers serving families and children also allow supervisors to review case progress and worker performance.

From the moment that a case is assigned to a worker, that user has access to the full case file online, organized in a logical, intuitive navigation bar that presents major aspects of casework. The system guides the user through the casework process, presenting choices in the language of casework practice. Where unfamiliar tasks emerge, the user may access online policy or system help to steer task completion.

The use of practice-related structure and online help, with the use of ticklers related to activity timeframes, helps to ensure that casework is performed in a

consistent manner across all parishes and teams, and that it adheres to agency policy. Information available to workers for judgement is documented at point-in-time, providing a reference point for later comparison or inquiry.

A key worker-centered feature is non-redundant data entry. Information is entered once into the system, stored on tables, and presented on screens on an as-needed basis. The system replaces manual creation of commonly used forms, notices, and documents, by allowing their generation with system-resident information in place.

The system manages the mechanics of client eligibility and provider and service reimburseability, allowing workers to focus their attention on service issues, while maintaining timely and accurate data to support Federal claims processes. Ticklers remind workers of important due dates, allowing them to set priorities to meet deadlines associated with agency policy.

LAKIDS as Provider Support

The provider management functions within the system support the recruitment, licensing, and payment of providers, and presents OCS staff with the information they need to work effectively with foster parents, prospective adoptive families, and facilities such as group homes or residential centers.

LAKIDS enables prompt and accurate provider payment, and stores payment history and invoice and payment request status, allowing workers to track the reimbursement process. As a web-based system, LAKIDS also has the potential to provide broad provider access to information through Internet access methods.

As a provider tool, LAKIDS has the potential to support online provider applications, and allow providers to input data for address or agency contact maintenance, submit electronic invoices, or provide vendor census and vacancy reporting to OCS.

LAKIDS as a Supervisory Tool

Supervisors can use LAKIDS as a vehicle to monitor the performance of individuals on their unit or team. Supervisors have real-time access to case files assigned within their unit, and may review activities completed, timeliness or completeness of tasks, or work in progress without physically removing the case file from their workers' access.

Supervisors may use LAKIDS to assign cases: the presentation of caseload data, coupled with information about worker education and training, allows supervisors a factual basis for case assignment. The escalation of ticklers regarding key work activities alerts supervisors of critical work with impending deadlines,

helping them ensure that essential or compulsory work is performed within set timeframes.

Supervisors may maintain up-to-date information about worker language, training and education, and may plan for worker training as well as monitor the training received.

The system's ability to generate summary activity reports and other evaluative information on demand eases the tedious data compilation and reporting tasks associated with supervision. Worker performance and timeliness information provides a basis for supervisory feedback, and for objective evaluation of employee performance.

LAKIDS as a Management Tool

Though built as a caseworker's information system, LAKIDS affords broad applicability for program administration and management. Because LAKIDS captures information about every phase of casework, including service activities, their outcome, and associated costs, it provides managers with unprecedented access to information for monitoring, planning, and control.

The system's database provides an automated, agency-wide case file. It supports service, business and management policies and philosophies by providing an accurate depiction of OCS-wide activity and outcome.

LAKIDS vests responsibility for performance at every level of the agency, by maintaining accurate information about client status and service delivery, and linking activity to policy by demonstrating that outcome represents adherence to the OCS mission, the Child and Family Services Plan, and its goals and objectives.

The system supports planning and budget control; it also permits targeting of resources in response to service demand and expenditure trends. Case level, parish, regional and State level reports help agency administrators know that staff are carrying out the agency's policy objectives.

LAKIDS' powerful and flexible reporting processes take full advantage of the integration of the database, allowing for the definition of reports on virtually any combination of data elements in the system. The production of routine monthly or quarterly activity reports can be achieved without demanding staff resources for tedious manual counts. When special information requests emerge, in response to executive-level queries, legislative request for program or client data, or media inquiries, authorized users may quickly define and create ad hoc reports.

1.5 Overview of the LAKIDS System

The basic building blocks of LAKIDS permit the management of services, staff, providers and financial processes. Basic technical processes support system interfaces and standard structural components and features called Common Application Functions, or CAFs. The basic functional organization of the system is illustrated in Exhibit 1 on the following page.

LAKIDS is organized into four major functional categories, or modules, that reflect the system design's relationship to the principal service delivery and management areas of OCS. The modules are: Service Management, Provider Management, Financial Management, and Staff Management. These are supported by Common Application Functions.

Each module may be further subdivided into functional areas, or topics. These topics divide the system's capabilities into logically connected functional units, which consist of related processes and features, such as Family Services and Foster Care, Provider Recruitment, or Create and Process Payments.

The integrated components of LAKIDS also merge information from the functional modules to produce timely, accurate and complete reports to support casework and management activity. For example, information from services, provider, and financial modules may be incorporated in a report of quarterly spending on foster care placements.

Service Management

The Service Management topics encompass the tools and processes that support workers and supervisors in the delivery of services to children and families. Service management topics provide case management tools and support such activities as protective services intake and investigation, and voluntary services intake processing. The Services topic paper incorporates family services, foster care and adoptive placement, and adoptive petitions and adoptive subsidy.

LAKIDS supports the basic case management processes associated with the full range of on-going services to OCS clients, whether in out of home placement or receiving support services, whether children or adult family members. These case management activities include:

- Providing on-going risk and safety assessment;
- Arranging and tracking foster care and adoptive placements and related payments for board and care or subsidy;

Exhibit 1

The LAKIDS Solution

Interfaces

- Federal Reporting
- External State Interfaces

- NCANDS
- AFCARS
- Seamless access to required SACWIS Interfaces: child support, TANF, Medicaid
- Support for reimbursement claims

Service Management

- CPI
- Services
- Complaints & Inquiry
- ICPC
- Adoption Registry
- AFCARS & NCANDS Reporting

- Case planning and case reviews
- Ongoing risk and safety assessment
- Conduct and record CPI investigation
- Foster Care and Adoptive placement
- Maintain records of ongoing casework

Staff Management

- Assignments
- Staff Management

- Review staff expertise to make case assignment
- Monitor caseloads
- Maintain staff demographics and locations

Financial Management

- Maintain Services and Rates
- Budget
- Assign Funding Sources
- Eligibility
- Manage Contributions and Trust
- Random Moment Sampling
- Create and Process Payments
- Issue and Reconcile Payments
- Payment Adjustments

- Calculate and track payments for services to clients
- Generate information to support Federal reimbursement and cost allocation
- Maintain a history of payment and spending activity
- Support fiscal management and control processes

Common Application Functions

- Desktop
- Automated Messaging
- Approvals
- Checklists
- Help, Policy and Procedures
- Office Automation
- Maintain Training Information
- Reports Mechanisms
- Search
- Security
- Ticklers
- Resource Directory
- Person Management
- Archiving
- Expunging and Purge
- Merge and Delete Persons
- Quality Assurance

- Support system infrastructure processing
- Provide a common look and feel
- Enhance usability

Provider Management

- Recruitment
- Home Provider
- Providers
- Contracts

- Recruit, screen and certify providers
- Maintain provider resource information
- Conduct provider monitoring and evaluation
- Create and modify contracts and rates

- Developing and maintaining case plans;
- Scheduling and monitoring case reviews and evaluations;
- Monitoring service and case plans;
- Monitoring legal status and generation of required reports to the courts;
- Placement decisions and placement monitoring;
- Targeting access to community resources;
- Generating case documents, forms and notices;
- Maintaining records of on-going casework; and
- Planning and evaluating service delivery and outcome.

The Service Management topic papers include:

- CPI (Intake and Investigation),
- Services,
- Interstate Compact on the Placement of Children (ICPC),
- Complaints and Inquiry,
- Adoption Registry,
- AFCARS, and
- NCANDS.

Provider Management

The functionality resident in provider management topics includes the system tools that manage the recruitment, certification, contracting, monitoring, and support of provider organizations and foster care homes. These topics assist OCS staff in recruiting and retaining home providers. The provider resource directory provides on-line information to caseworkers who must make placement decisions or service arrangements with child welfare or family services providers. Home provider training and certification can also be planned and tracked.

The Provider Management functionality allows users to:

- maintain provider resource information;
- recruit, screen and certify home providers;
- record on-going home provider training and support services;
- conduct provider monitoring, evaluation and home provider re-certification; and
- create and modify provider contracts and rates.

Information about units of services and expenditures can assist staff in rate setting and contract negotiation with providers.

Provider Management topics include:

- Recruitment,
- Home Provider,
- Providers, and
- Contracts.

Financial Management

The financial management topics support the business of child welfare and family services by allowing users to perform fiscal management tasks, assure proper payment for services, maintain accurate eligibility records, and claim associated Federal reimbursement. Building on the relationships that exist among the services offered to a case participant, the service providers, the terms of provider agreements, and the payment funding source, LAKIDS captures information that results in the generation of payments to providers for ongoing services.

Through interfaces with the statewide accounting and payment systems, LAKIDS also maintains information about current agency budgets and up-to-date expenditures made for one-time and recurring payments. This information, available on the basis of detailed accounting attributes, allows the user access to current year and historical expenditure data for analysis, monitoring, and audit purposes.

The Financial Management functions allow the user to:

- calculate payments for services provided to case participants;
- generate information about providers and participant eligibility to support reimbursement processes through ISIS;
- maintain accurate client eligibility status and redeterminations to support Federal reimbursement claims;
- assist in the preparation of Federal claims by identifying service delivery and administrative costs through linkages with cost allocation processes;
- maintain a history of payment and spending activity; and
- support fiscal management and control processes.

The Financial Management topics include:

- Maintain Services and Rates,
- Budget,
- Assign Funding Sources,
- Eligibility,
- Manage Client Contributions and Trust,
- Random Moment Sampling,
- Create and Process Payments,
- Issue and Reconcile Payments, and

- Payment Adjustments.

Staff Management

The system's staff management features assist in caseload assignment and management, associating staff with particular cases, and providing information that supervisors can use as a basis for assigning cases to workers. Automation allows OCS to maintain information about its staff and their location, staffing assignments, case counts, and skills. The system maintains caseload counts, and will allow supervisors and managers to develop equitable caseloads across teams or units as they assign or reassign cases.

The system maintains assignment history, displaying every worker who has had an assigned role in the case life, whether an intake worker, a treatment supervisor, or a clinical evaluator. Assignment history may be viewed on the Worker's Desktop throughout the life of a case.

The staff management module maintains information about worker location and supervisory relationships. LAKIDS provides information about such worker attributes as second language and formal certifications, while a record of staff training is also maintained.

The staff management topics include:

- Staff Management, and
- Assignments

Common Application Functions

The Common Application Functions, or CAFs, are those functions that are common throughout the system and required to support the processing of other system modules. CAFs provide a common look and feel to functions that either support the technical infrastructure of LAKIDS, such as Security or System Help, or support business activities, such as Ticklers, Search, or Archiving.

A design that incorporates CAFs simplifies the commonly used system processes encountered by the users, because each process is performed the same way within any point in casework. CAFs also enhance usability, by establishing quick familiarity with basic and routine system processes, and therefore minimizing the time spent on user training.

The Common Application Function topics include:

- Desktop,
- Automated Messaging,

- Approvals,
- Checklists,
- Help, Policy and Procedures,
- Office Automation,
- Maintain Training Information,
- Reports Mechanisms,
- Search,
- Security,
- Ticklers,
- Resource Directory,
- Person Management,
- Archiving,
- Expunging and Purge,
- Merge and Delete Persons, and
- Quality Assurance.

1.6 How to Read this Document

For review of the detailed design papers, it is recommended that each reviewer first read Section 2, *Introduction to the Detailed System Design Topic Papers*, and then proceed to the individual design documents. Review of the Forms and Reports sections of this deliverable (Sections 5 and 6) will provide the reader with the specifications for development or creation of forms and reports related to the design topics.

Design papers may be reviewed in conjunction with the Requirements Matrix in Volume 12, which links each Louisiana requirement for LAKIDS to either a design paper or another component of this deliverable, such as the object model or logical data model description. While design papers address the design of the application, the responses in the matrix address specific Louisiana requirements, and it is here that a summary of how LAKIDS meets each Louisiana requirement is documented item by item.